Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

Claim 1 (Previously Presented): A method for communicating between a first station and a second station over a distribution medium, comprising:

the first station sending an alternating power signal over the distribution medium, the alternating power signal comprising a plurality of communication symbols;

the second station receiving the alternating power signal and determining therefrom the plurality of communication symbols;

the second station drawing current from the alternating power signal in a sequence corresponding to at least one further communication symbol; and

the first station determining the current drawn in the alternating power signal to recover the at least one further communication symbol.

Claim 2 (Previously Presented): The method of claim 1, wherein the alternating power signal has a substantially square wave-form, and has substantially equal proportions of positive and negative components, averaged over time.

Claim 3 (Previously Presented): The method of claim 2, wherein the second station drawing current comprises the second station drawing current during a positive component and a negative component of the alternating power signal.

Claim 4 (Previously Presented): The method of claim 3, wherein the second station is arranged to draw current during the positive component of the alternating power signal in a sequence corresponding to the at least one further communication symbol, and to repeat the current draw in the negative component of the alternating power signal.

Claim 5 (Original): The method of claim 3, wherein the second station is arranged to draw current during a substantially centrally located portion of the positive component and negative component of the alternating power signal.

Claim 6 (Original): The method of claim 3, wherein the second station is arranged to draw current adjacent each rising edge and falling edge of the alternating power signal.

Claim 7 (Previously Presented): The method of claim 1, wherein the second station drawing current further comprises the second station not deriving power from the alternating power signal for other purposes while drawing current corresponding to the at least one further communication symbol.

Claim 8 (Previously Presented): The method of claim 1, wherein the communication symbols comprise '1', '0', 'idle', and 'sync'.

Claim 9 (Original): The method of claim 8, wherein the '0' symbol is represented by equal portions of positive and negative components in the alternating power signal, and the '1' symbol is represented by unequal portions of positive and negative components in the alternating power signal, and the proportion of positive and negative components in the alternating power signal representing a '1' symbol is alternated each time a '1' symbol is sent.

Claim 10 (Previously Presented): The method of claim 1, wherein the plurality of communication symbols form a stream, selected from one of:

a command stream comprising a sync symbol, an instruction byte, and a plurality of station instructions;

an idle stream comprising a sync symbol, and a plurality of idle symbols; and

an instruction stream, comprising a sync symbol, an instruction byte, a station address, and station data.

Claim 11 (Previously Presented): The method of claim 10, wherein there are a plurality of second stations, each second station having an address, each second station responsive to a station instruction or to station data at a position in the command stream corresponding to its address, and each second station draws current during an idle pulse at a position in the command stream corresponding to its address.

Claim 12 (Previously Presented): The method of claim 11, wherein one said instruction byte corresponds to a second station activate/deactivate instruction, each second station activating or deactivating according to whether a corresponding station instruction is a '1' symbol or a '0' symbol, respectively.

Claim 13 (Previously Presented): The method of claim 12, wherein each second station is arranged to count the number of other second stations that have been activated before it, and to activate an offset from the sync pulse corresponding to the number of other second stations.

Claim 14 (Previously Presented): An apparatus for communicating with at least one station over a distribution medium, comprising:

means for providing an alternating power signal over the distribution medium, the alternating power signal comprising a plurality of communication symbols; and

control means arranged to determine current draw in the alternating power signal to recover at least one further communication symbol from a second station.

Claim 15 (Previously Presented): The apparatus of claim 14, wherein the means for providing an alternating power signal comprises a power generating circuit connected to and operating under control of the control means, the power generating circuit operable to provide an alternating power signal over the distribution medium.

Claim 16 (Previously Presented): The apparatus of claim 15, wherein the power generating circuit is arranged to provide an alternating power signal that has a substantially square wave-form, and has substantially equal proportions of positive and negative components, averaged over time.

Claim 17 (Previously Presented): The apparatus of claim 14, wherein the communication symbols comprise '1', '0', 'idle', and 'sync'.

Claim 18 (Original): The apparatus of claim 17, wherein the '0' symbol is represented by equal portions of positive and negative components in the alternating power signal, and the '1' symbol is represented by unequal portions of positive and negative components in the alternating power signal, and the proportion of positive and negative components in the alternating power signal representing a '1' symbol is alternated each time a '1' symbol is sent.

Claim 19 (Previously Presented): The apparatus of claim 15, wherein the control means is arranged to control the power generating circuit to form the alternating power signal from a plurality of communication symbols forming a stream, selected from one of:

a command stream comprising a sync symbol, an instruction byte, and station instructions;

an idle stream comprising a sync symbol, and a plurality of idle symbols; and

an instruction stream, comprising a sync symbol, an instruction byte, a station address, and station data.

Claim 20 (Original): The apparatus of claim 14, wherein the control means is arranged to determine current draw during a substantially centrally located portion in each positive component and negative component of the alternating power signal.

Claim 21 (Original): The apparatus of claim 14, wherein the control means is arranged to determine current draw adjacent each rising edge and falling edge of the alternating power signal.

Claim 22 (Previously Presented): An apparatus for communicating with a first station over a distribution medium, comprising:

means for receiving an alternating power signal comprising a plurality of communication symbols over the distribution medium, and for recovering the communication symbols therefrom; and

control means arranged to draw current from the alternating power signal in a sequence corresponding to at least one further communication symbol.

Claim 23 (Original): The apparatus of claim 22, wherein the control means is arranged to draw current during a positive component and a negative component of the alternating power signal.

Claim 24 (Previously Presented): The apparatus of claim 22, wherein the control means is arranged to draw current during the positive component of the alternating power signal in a sequence corresponding to the at least one further communication symbol, and to repeat the current draw in the negative portion of the alternating power signal.

Claim 25 (Original): The apparatus of claim 24, wherein the second station is arranged to draw current during a substantially centrally located section in a positive component and negative component of the alternating power signal.

Claim 26 (Original): The apparatus of claim 24, wherein the second station is arranged to draw current adjacent each rising edge and falling edge of the alternating power signal.

Claim 27 (Previously Presented): The apparatus of claim 22, wherein the second station is arranged not to derive power from the alternating power signal during a prescribed section other than the current draw.

Claim 28 (Previously Presented): The apparatus of claim 22, wherein the means for recovering is arranged to recover a plurality of communication symbols forming a stream, and to decode the stream into one of:

a command stream comprising a sync symbol, an instruction byte, and station instructions;

an idle stream comprising a sync symbol, and a plurality of idle symbols; and

an instruction stream, comprising a sync symbol, an instruction byte, a station address, and station data.

Claim 29 (Previously Presented): The apparatus of claim 28, wherein the apparatus has an address, the means for recovering being responsive to station instruction and station data at a position in the command stream corresponding to the address, the control means arranged to draw current during an idle pulse at a position in the command stream corresponding to the address.

Claim 30 (Previously Presented): The apparatus of claim 29, wherein the control means is arranged to count the number of other apparatus that have been activated before it, and to activate at an offset from the sync symbol corresponding to the number of other apparatus.

Claim 31 (Currently Amended): A method for controlling a plurality of ~~second~~ stations, comprising:

distributing an alternating power signal to the ~~second~~ stations via a distribution medium;

distributing a reference datum to the ~~second~~ stations; and

selectively activating a plurality of the ~~second~~ stations at different ~~a~~ prescribed phase offsets ~~offset~~ from the reference datum so that one of the activated stations draws power from the alternating signal at a different time than at least one other one of the activated stations.

Claim 32 (Previously Presented): The method of claim 31, wherein the alternating power signal has a substantially square wave-form of equal amplitude, and has substantially equal proportions of positive and negative components, averaged over time.

Claim 33 (Previously Presented): The method of claim 31, wherein the distributing of a reference datum further comprises distributing a plurality of activation marks after the reference datum.

Claim 34 (Original): The method of claim 31, wherein the reference datum comprises a predetermined sequence of positive and negative components in the alternating power signal.

Claim 35 (Previously Presented): The method of claim 33, wherein the plurality of activation marks comprise a further predetermined sequence of positive and negative components in the alternating power signal after the reference datum.

Claim 36 (Currently Amended): The method of claim 33, wherein the activating of ~~second~~ stations comprises sending instructions to each ~~second~~ station specifying whether or not to activate the station, the instructions being embedded in the plurality of activation marks.

Claim 37 (Currently Amended): An apparatus for controlling a plurality of ~~second~~ stations connected to the apparatus by a distribution medium, the apparatus comprising:

means for providing power to the ~~second~~ stations via the distribution medium; and

control means arranged to provide a reference datum to the ~~second~~ stations and an instruction to instruct each ~~second~~ station to activate, each ~~second~~ station being responsive to the instruction to activate at a prescribed phase offset from the reference datum so that one of the activated stations draws power at a different time than at least one other one of the activated stations.

Claim 38 (Previously Presented): The apparatus of claim 37, wherein the means for providing power comprises a power generating circuit connected to an operating under control of the control means, the power generating circuit operable to provide an alternating power signal of variable frequency over the distribution medium.

Claim 39 (Previously Presented): The apparatus of claim 38, wherein the power generating circuit is arranged to produce an alternating power signal that has a substantially square wave-form, and has substantially equal proportions of positive and negative components, averaged over time.

Claim 40 (Original): The apparatus of claim 38, wherein the control means is further arranged to provide a plurality of activation marks after the reference datum.

Claim 41 (Previously Presented): The apparatus of claim 38, wherein the control means is arranged to provide the reference datum by controlling the power generating circuit to produce a predetermined sequence of positive and negative components in the alternating power signal.

Claim 42 (Previously Presented): The apparatus of claim 40, wherein the control means is arranged to provide the activation marks by controlling the power generating circuit to produce a further predetermined sequence of positive and negative components in the alternating power signal after the reference datum.

Claim 43 (Previously Presented): The apparatus of claim 40, wherein the control means is arranged to provide instructions to each second station by controlling the power generating circuit to produce a prescribed sequence of alternating positive and negative components in the alternating power signal as the activation marks, each activation mark corresponding to an instruction to a second station whether or not to activate.

Claim 44 (Previously Presented): The method of claim 1, wherein the first and second station comprise part of an irrigation system.

Claim 45 (Previously Presented): The apparatus of claim 14, wherein the at least one second station comprises part of an irrigation system.

Claim 46 (Previously Presented): The apparatus of claim 22, wherein the first station comprises part of an irrigation system.

Claim 47 (Currently Amended): The method of claim 31, wherein the ~~second~~ stations comprise part of an irrigation system.

Claim 48 (Currently Amended): The apparatus of claim 37, wherein the ~~second~~ stations comprise part of an irrigation system.

Claim 49 (Previously Presented): An apparatus for communicating with at least one station over a distribution medium, comprising:

a power generating device for providing an alternating power signal over the distribution medium, the alternating power signal comprising a plurality of communication symbols; and

a control device arranged to determine current draw in the alternating power signal to recover at least one further communication symbol from a second station.

Claim 50 (Previously Presented): The apparatus of claim 49, wherein the at least one station comprises part of an irrigation system.

Claim 51 (Previously Presented): An apparatus for communicating with a first station over a distribution medium, comprising:

a receiver for receiving an alternating power signal comprising a plurality of communication symbols over the distribution medium, and for recovering the communication symbols therefrom; and

a control device arranged to draw current from the alternating power signal in a sequence corresponding to at least one further communication symbol.

Claim 52 (Previously Presented): The apparatus of claim 51, wherein the first station comprises part of an irrigation system.

Claim 53 (Currently Amended): An apparatus for controlling a plurality of ~~second~~ stations connected to the apparatus by a distribution medium, the apparatus comprising:

a power generating device for providing power to the ~~second~~ stations via the distribution medium; and

a control device arranged to provide a reference datum to the ~~second~~ stations and an instruction to instruct each ~~second~~ station to activate, each ~~second~~ station being responsive to the instruction to activate at a prescribed phase offset from the reference datum so that one of the activated stations draws power at a different time than at least one other one of the activated stations.

Claim 54 (Currently Amended): The apparatus according to claim 53, wherein the ~~second~~ stations comprise part of an irrigation system.

Claim 55 (New): The method of claim 31, further comprising:

sensing a number of activated stations; and

selecting the prescribed phase offset from a set of prescribed phase offsets according to the number of activated stations to average the power drawn by the activated stations.

Claim 56 (New): The method of claims 55, wherein the set of prescribed phase offsets comprises phase offsets of 0 degrees, 22.5 degrees, 45 degrees and 67.5 degrees.

Claim 57 (New): The apparatus of claim 37, further comprising:

sensing means for sensing a number of activated stations; and

selecting means for selecting the prescribed phase offset from a set of prescribed phase offsets according to the number of activated stations to average the power drawn by the activated stations.

Claim 58 (New): The apparatus of claims 57, wherein the set of prescribed phase offsets comprises phase offsets of 0 degrees, 22.5 degrees, 45 degrees and 67.5 degrees.

Claim 59 (New): The apparatus of claim 53, further comprising:

a sensing device for sensing a number of activated stations; and

a selecting device for selecting the prescribed phase offset from a set of prescribed phase offsets according to the number of activated stations to average the power drawn by the activated stations.

Claim 60 (New): The apparatus of claims 59, wherein the set of prescribed phase offsets comprises phase offsets of 0 degrees, 22.5 degrees, 45 degrees and 67.5 degrees.